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THE CONTENT OF PROJECT PROPOSALS APPRAISED IN 1988 BY PROJECT APPRAISAL SECTION WITH SPECIAL ATTENTION TO PROJECTS PROPOSED FOR AFRICA*

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* The views expressed in this document are those of the author and do not necessarily reflect those of the UNIDO Secretariat. This document has not been edited.

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The Content of Project Proposals Appraised by APP In 1988 With Special Attention To Projects Proposed For Africa

Introduction

The report below illustrates the salient features of 448 project proposals received by UNIDO's Project Appraisal Section (APP) in 1988. An overview of UNIDO's technical assistance programme is thereby presented for the period concerned. Information useful to the possible future design of the technical assistance programme may thus be provided. Particular attention is paid to projects proposed for implementation in the African region. This emphasis is justified both by the severity of development problems facing Africa as well as by the fact that, numerically and in value terms, Africa accounts for the largest regional share of UNIDO's technical assistance.

No attempt is made to assess an optimal economic distribution of projects. Were such an assessment possible, the task would be hindered by the fact that, during the project cycle, projects are not evaluated on economic or technical criteria in a comparative fashion. Only outstanding general features of the data can be considered.

The Classification of Project Proposals

A brief explanation should be made on the procedure by which project proposals were classified and entered on APP's project monitoring system.

The Industrial Sector classification was strictly interpreted and indicates only the sector in which the proposed project was to be carried out. Thus where an engineering problem was addresssed in a chemical industry a "CHE" (Chemical Industry) sectoral classification would be given. A small number of projects gave technical assistance in more than one sector. In these cases an "OTH" (Other Industries) classification was

made. Where a project was proposed for an industry engaged in the immediate processing of either agricultural, metallurgical or chemical materials then the related sectoral classification was assigned. Hence, a project assisting the leather tanning industry would be given an "AGR" (Agricultural Industry) sectoral classification. International Standard Industrial Classification codes (ISIC) were applied along the same lines.

Some flexibility was required in assigning Industrial Area classifications. To capture, for subsequent analysis, a project's primary and incidental objectives and activities the Industrial Area classifications were assigned so as to best reflect the broad content of a project. Thus a proposed training seminar in the preparation of feasibility studies would receive both "FEAS" (Pre-feasibility/Feasibility Studies) and "HRD" (Human Resource Development) codes. It should thus be borne in mind that the Industrial Area classifications presented below represent high-case figures. The Industrial Area classifications themselves coincide with priorities identified and defined in UNIDO's Medium Term Plan 1990-1995. Each classification describes a major problem area in industrial development that, according to the Plan, will pose a challenge to UNIDO in the years to come.

The value of a project is entered exclusive of support costs. For projects involving more than one nation a least developed country (LDC) classification was given when half or more of the participating nations were LDCs. In such a case an LDC classification would be made irrespective of wether the project addressed concerns specific to LDCs.

The codes used to classify the content of project proposals appear throughout this report. For ease of reference these are described below;

Industrial Area Classifications

DTT	Development & transfer of technology
ECDC	Economic cooperation amongst developing countries
ENER	Energy
ENV	Environment protection and pollution control
FEAS	Pre-feasibility/feasibility studies

FIN	Mobilization of financial resources (investment promotion)
HRD	Human Resource Development (training in specific technologies)
QC	Quality Control
REH	Industrial Rehabilitation
SEC/PLAN	Sector or sub-sectoral development planning
SME	Small and medium scale industry
STRAT	Overall industrial strategies policies
WOM	Integration of women in industrial development

Primary Function Classifications

DS	Direct Support
FELL	Fellowship
IB	Institution
PA	Preparatory Assistance
PF	Project identification/formulation
PIL	Pilot plant
SEM	Workshop/Seminar
ST	Study Tour
TRNG	Group/Direct Training

PPD Region Codes

AFR	Africa
AP	Asia and Pacific
ARAB	Arab countries
EUR	Europe and Mediterranean
GIPP	Global and Interregional
LAC	Latin America and Caribbean
LDC	Least developed countries
	(the LDC code can be combined with any other region code)

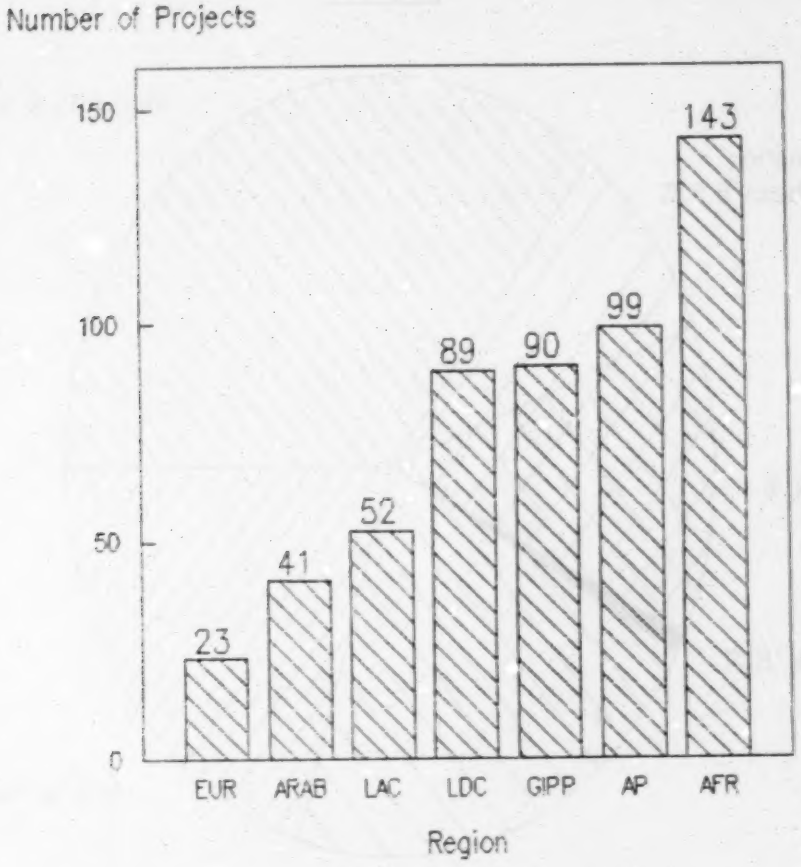
Industrial Sector Classifications

AGR	Agro industries	OTH	Other industries
CHE	Chemical industries		
ENG	Engineering industries		
MET	Metallurgical industries		

Basic Structure of the Data

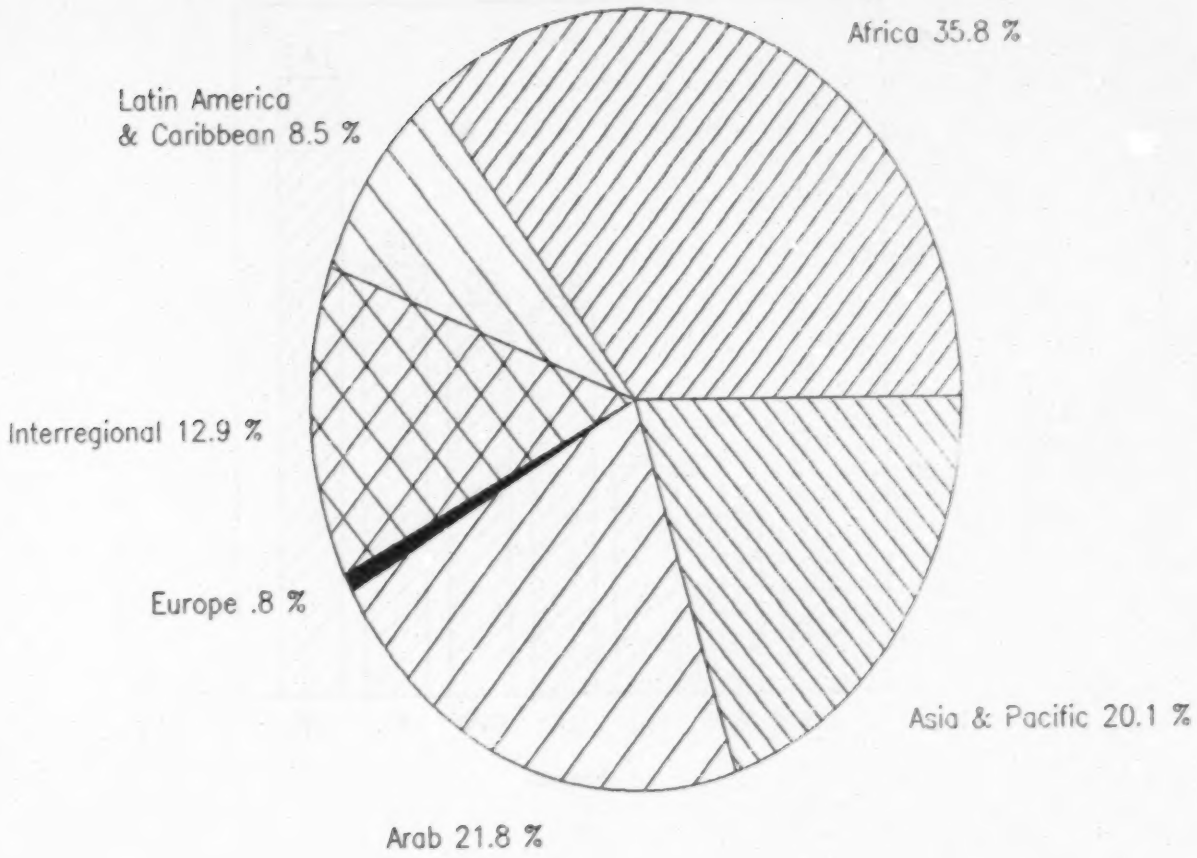
A total of 463 projects were entered on the APP project monitoring system. This figure corresponds to the number of project proposals received by APP in 1988 excluding UNDP financed projects. The appraisal of a limited number of these projects continued into 1989. Of the 463 projects 412 were Official Submissions, 23 were pending reformulation, 13 were project concepts and 15 had been withdrawn following their submisssion to APP. Figures relating to the withdrawn projects are excluded from the following analysis, leaving a working database of 448 projects.

Figure 1. The Numerical Distribution of Projects by Region



The numerical distribution of projects by region is illustrated in Figure 1. The total of projects exceeds 448 given that least developed countries receive both an LDC and a regional code. Africa clearly receives the largest regional quota of projects and Europe, as would be expected, the smallest (the European and Mediterranean countries in question are Romania, Poland, Bulgaria, Albania, Yugoslavia, Cyprus, Malta and Turkey). Of note is the relatively small number of projects in Latin America and the Arab states, particularly by comparison with the number of European projects.

Figure 2. The Regional Distribution of Projects by Value



Note. Figures do not add due to rounding.

The total value of projects amounted to $ 112,167,608. The smallest project had a value of $470 while the largest was worth $ 9,021,468. The average project value was $ 252,062.

Figure 2. illustrates the percentage distribution amongst regions of the total project value. These regional value shares correspond approximately to the regional numerical shares of projects. The principal divergences are the figures for Interregional and regional Arab projects. Interregional projects account for 20% of the total number of projects but only 12.9% of the total value of projects, indicating projects of

below average size. Conversely, the regional Arab projects make up 21.8% of projects by value but only 9% of the total number of projects, indicating larger than average project values. LDC projects, not represented on the pie chart, account for 16.6% of the total value of projects. LDCs account for 19.8% of the total number of projects.

The figure for the average project size affords no information on the dispersion of project values. For this purpose an ogive curve was drawn (fig.3) to illustrate the percentage numbers of projects below given sizes. Information is read from the curve in two ways. Firstly, to ascertain the percentage of projects below any value a vertical line is drawn up from this value. At the point of intersection with the curve a horizontal line is extended to the vertical axis against which the percentage figure is indicated. Alternatively, the reverse procedure, beginning at the vertical axis, indicates the size below which any chosen percentage of the projects lie. Thus, following the line drawn on figure 3 it is seen that 50% of the projects have a value slightly below $ 61,000. Similarly, the curve shows that the average project value has been pulled upwards by a small number of large projects. In fact, around 84% of the projects have a value below the average figure. The initially steep slope of the curve indicates that the modus operandi of project implementation is through large numbers of small sized projects. This orientation does not simply reflect a preponderance of SIS funded projects, as these constitute only 20.5% of all projects.

While the regional destination of projects and project resources has been identified, further indicators describing the recipient states may be useful. A second ogive curve (fig.4) was drawn to illustrate the value of projects for implementation in countries possessing given shares of manufacturing value added (MVA) in GDP. Other macroeconomic or social indicators may also have been chosen. The average share of MVA in GDP amongst countries receiving UNIDO assistance was 17.9%. This average figure was used to proxy the MVA values of Interregional and Global projects, for which an individual country MVA figure does not apply. Due to the significant value of Global and Interregional projects (see fig.2) this procedure has imparted a bias in the curve towards the average MVA share. Nevertheless, figure 4. shows that 50% of project resources are destined for implementation in countries in which MVA accounts for less

Figure 3. Ogive Curve Illustrating the Percentage Number of Projects below Specific Sizes

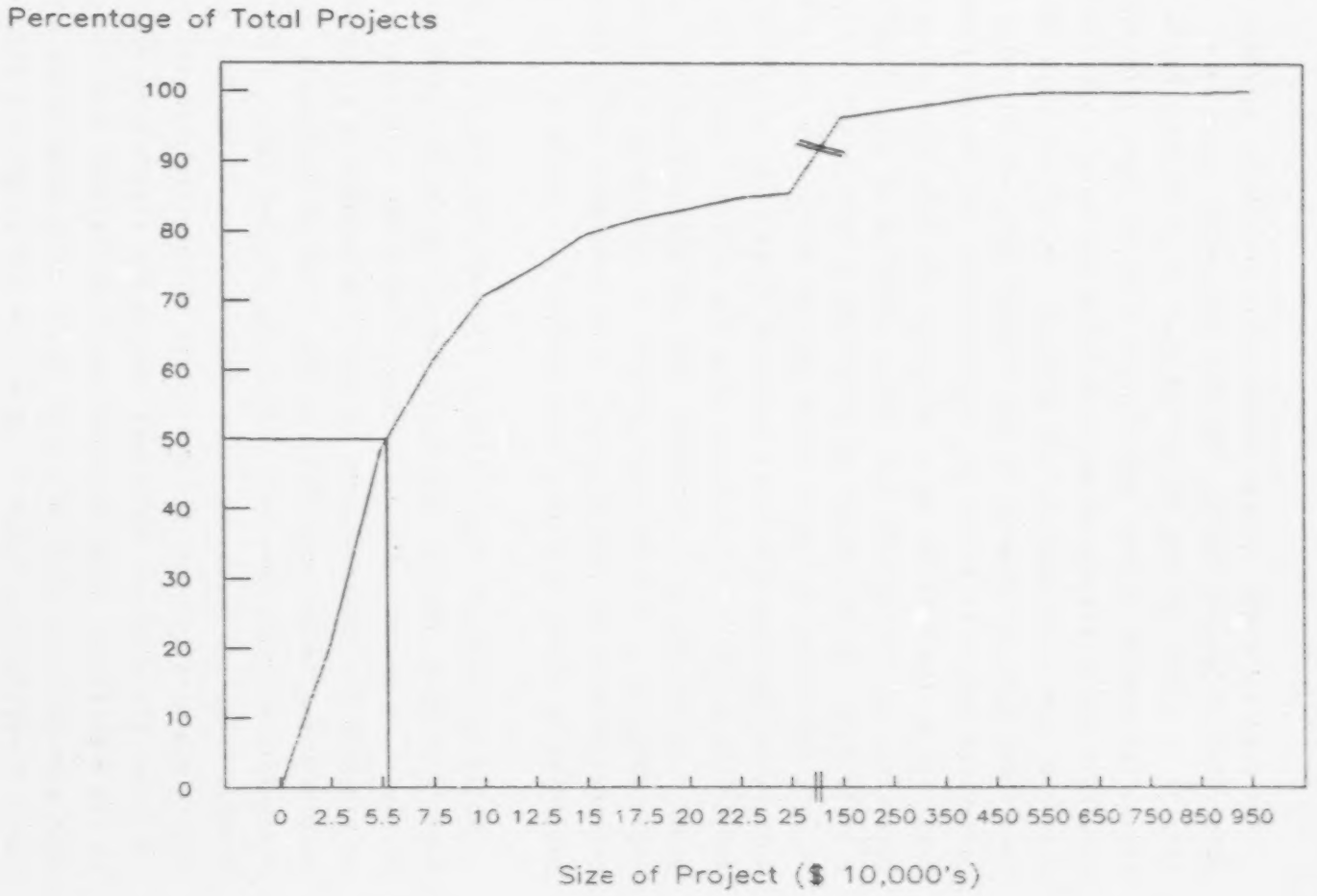
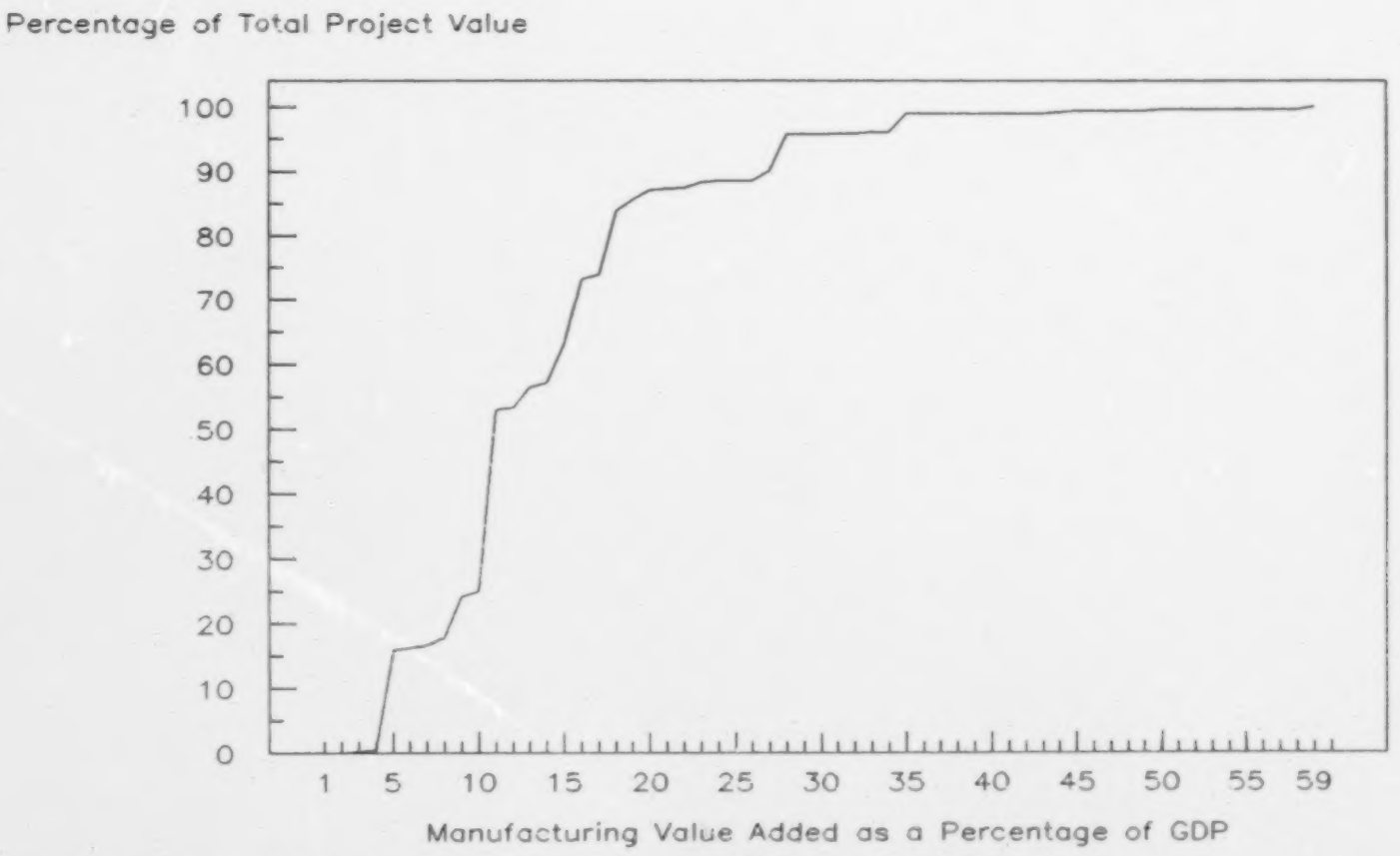


Figure 4. The Percentage of Total Project Value for Implementation in Countries with Shares of Manufacturing Value Added in GDP below Specific Sizes



Note. Source of manufacturing value added figures: UNIDO Global Report 1988; Economist Intelligence Unit Country Profiles 1988–1989;World Bank Development Report 1988.

than 11% of GDP. Alternatively, the curve shows that 20 % of project resources are directed to countries in which MVA accounts for 18% or more of GDP. These readings partly reflect the number of projects for Africa, the region with the lowest average country share of MVA in GDP.

Figure 5. The Distribution of Projects by Primary Function

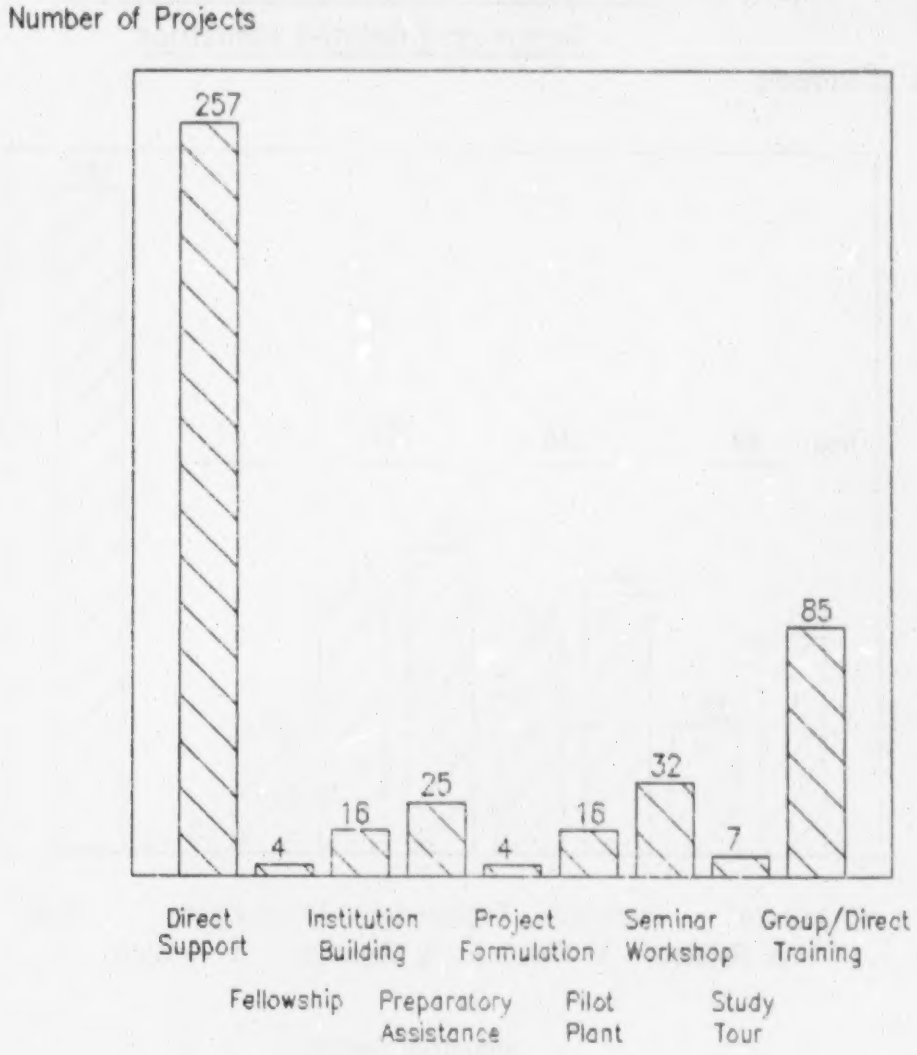


Figure 5. illustrates the distribution of projects by primary function. Direct Support is clearly the major primary function of projects. The training related functions, Fellowships, Seminars/Workshops and Group/Direct training are the primary function of 27% of all projects. The remaining primary function classifications make up 15.2% of all projects.

Figure 6. The Distribution of Projects by Industrial Sector and Related Industries

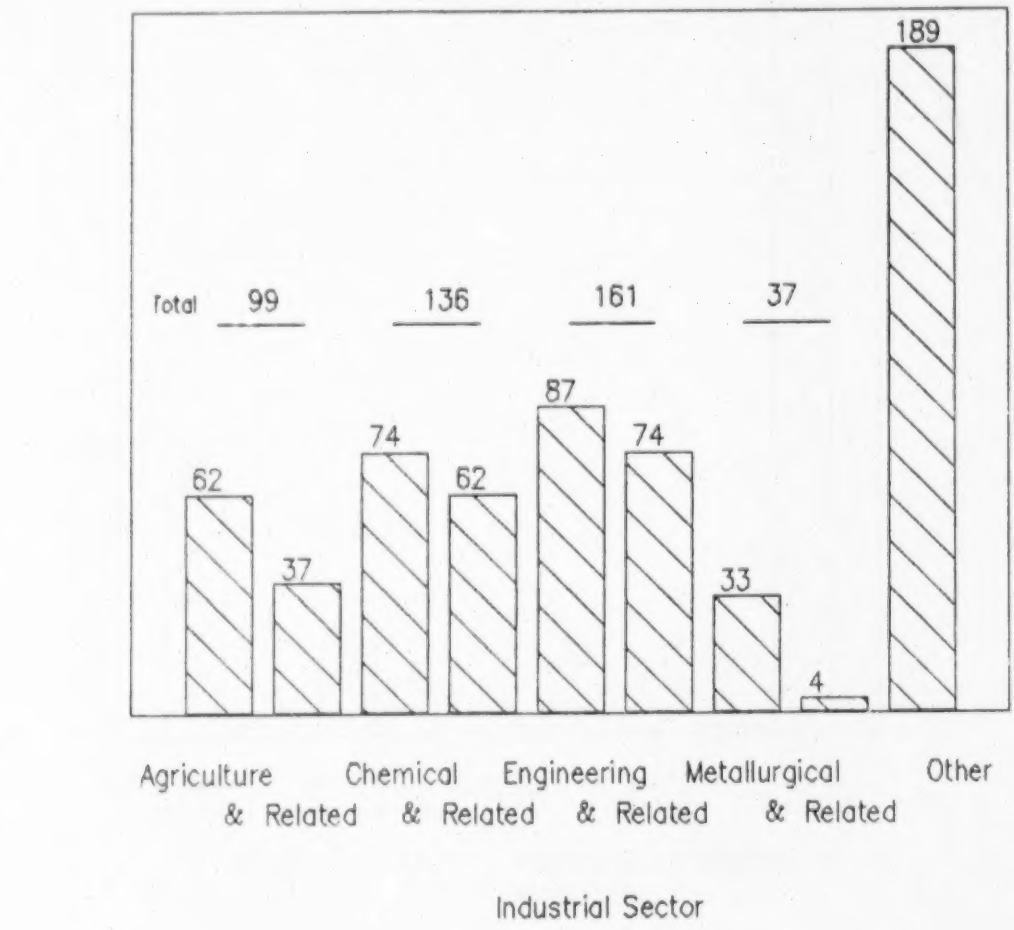


Figure 6. illustrates the numbers of projects in each industrial sector as well as that sector's related industries. The large "OTH" column refers to those projects located in industrial sectors not readily identifiable as either agricultural, chemical, engineering or metallurgical industries. This category also comprises many of the training related projects as well as those projects spanning two or more industrial sectors. Of the remaining sectors the engineering and chemical industries predominate.

Figure 7. The Distribution of Project Resources between Industrial Sectors

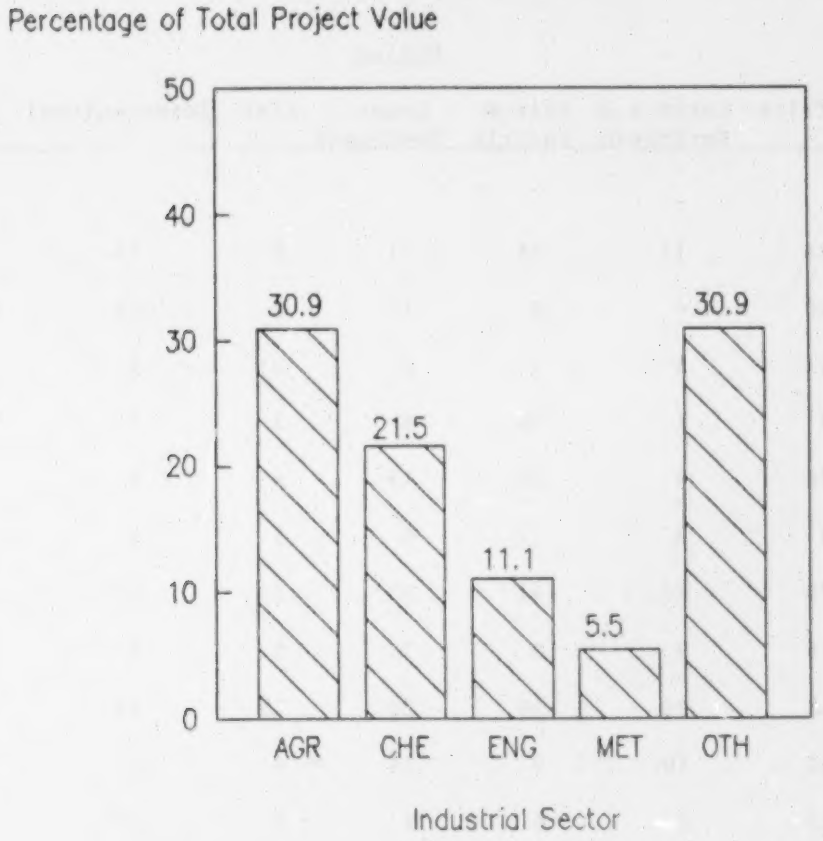


Figure 7. illustrates the distribution of the total value of projects between industrial sectors. Some notable differences emerge on comparison with figure 6. Chemical and, most clearly, Engineering projects receive far less in value terms than in numerical terms, representing around a third and two thirds, respectively, of the value of projects in agriculture. These figures indicate a large average project value in agriculture and a relatively small average project value in the other, excluding metallurgical, industrial sectors. The "OTH" entry likewise shares an equal amount of project resources with agriculture while accounting for almost twice as many projects. The large average size of agro-industrial projects stems in part from a small number of large African projects for implementation in this sector.

Table 1. indicates the distribution of the Industrial Area classifications of projects in each region.

Table 1. The Industrial Area Classifications of Projects for each Region

	Region							
Indust. Area	Africa	Latin A.& Caribbean	Asia & Pacific	Least Developed	Arab	Interregional	Europe	Total I.Area
DTT	24	11	25	11	6	16	7	89
ECDC	20	4	2	11	2	22	2	52
ENER	11	5	3	8	0	2	1	22
ENV	6	1	10	4	1	7	4	29
FEAS	28	4	25	19	4	8	3	72
FIN	9	3	11	8	5	8	0	36
HRD	70	17	41	35	13	50	12	203
QC	15	9	8	7	5	5	3	45
REH	48	20	16	30	15	13	9	121
SEC/PLAN	20	10	9	14	4	6	2	51
SME	12	2	6	9	2	10	1	33
STRAT	7	2	3	4	2	3	0	17
WOM	3	2	0	2	0	3	0	8

Key;

DTT - Development and Transfer of Technology
ECDC - Economic cooperation between developing countries
ENER - Energy
ENV - Environment protection and pollution control
FEAS - Pre-feasibility/feasibility studies
FIN - Mobilization of financial resources (investment promotion)
HRD - Human Resource Development (training in specific technologies)
QC - Quality control
REH - Industrial rehabilitation
SEC/PLAN- Sector of sub-sectoral development planning
SME - Small and medium scale industry
STRAT - Overall industrial strategies/policies
WOM - Integration of women in industrial development

For ease of exposition the above figures are presented graphically in figures 8a, 8b and 8c. The three bar diagrams should be read as one for comparative purposes. Of note is the outstanding importance of Human Resource Development and Industrial Rehabilitation projects as well as the low figures registered for the integration of women, industrial strategies, energy, investment promotion and environment entries. The number of LDC Industrial Area classifications is omitted from the total as every LDC belongs to one of the other regions. Africa has the highest figures in all but the environmental, integration of women and economic co-operation amongst developing nations projects. This is to be expected given the high total number of African projects.

Figures 9a, 9b and 9c illustrate the Industrial Area classifications of projects for each region when taken as a percentage of the total number of projects per region. The three bar diagrams permit a visual comparison of the emphasis accorded each industrial area in the total of each region's projects. Surprisingly perhaps, it is seen that the region with the largest share of technology development and transfer projects is Europe. While, as seen in figure 8a., Africa has the highest absolute number of projects in this industrial area, 4 other regions receive a greater weight of technology transfer projects in their respective regional totals.

Interregional projects account for the highest regional share of projects promoting economic co-operation amongst developing nations, as would be expected. The low figures in this industrial area for Asia and the Pacific are of note. Europe receives a greater relative percentage of environmentally related projects than any other region. The weight of human resource development and industrial rehabilitation projects in Europe is again of note.

Table 2. indicates the distribution of the Primary Function classifications of projects in each region.

Table 2. The Primary Function Classifications of Projects in each Region

DS - Direct support
FELL - Fellowship
IB - Institution building
PA - Preparatory Assistance
PF - Project identification/formulation
Pil - Pilot plant
SEM - Workshop/Seminar
ST - Study Tour
TRNG - Group/Direct Training

Primary Function	Regions: Africa	Latin A.& Caribbean	Asia & Pacific	Least Developed	Arab	Interregional	Europe	Total
DS	88	42	55	60	31	26	15	257
FELL	0	0	2	1	0	0	2	4
IB	6	1	6	3	2	1	0	16
PA	6	0	15	5	0	4	0	25
PF	1	2	0	1	0	1	0	4
PIL	9	1	5	3	0	1	0	16
SEM	5	3	2	4	1	20	1	32
ST	3	0	2	1	1	0	1	7
TRNG	25	3	12	11	6	35	4	85

The figures above are represented graphically in Figures 10a and 10b which should be read as a single bar diagram for comparative purposes. The number of LDC primary function classifications is omitted from the total as every LDC belongs to one of the other regions. Direct Support clearly forms the major primary function of projects. The Group/Direct training function receives the second largest number of projects, with the highest number of these going to Interregional purposes. Also of note is the large Preparatory Assistance entry for the Asia and Pacific region.

Figure 11. illustrates the industrial sector classifications of projects in each region.

Figure 8a. The Industrial Area Classifications of Projects in each Region

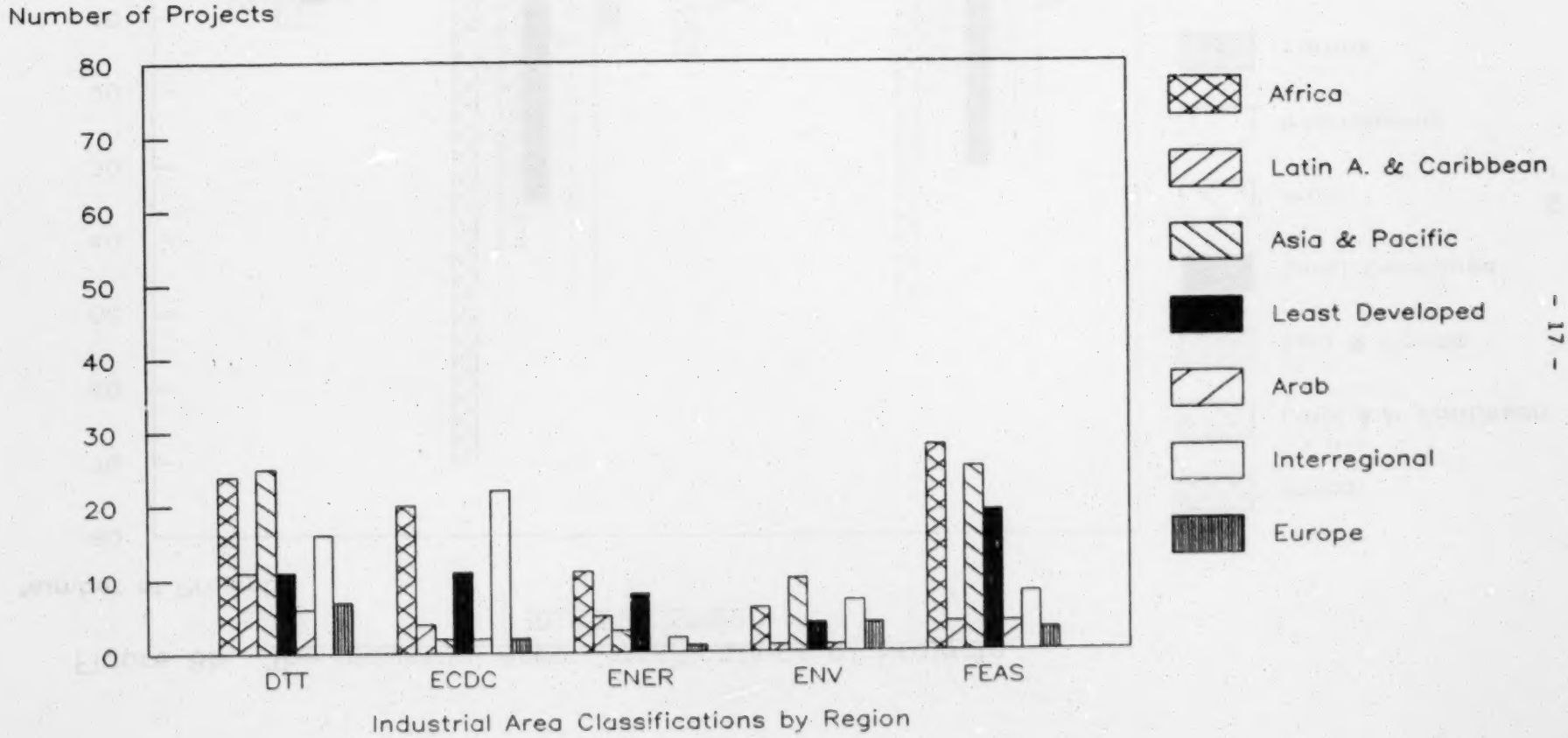


Figure 8b. The Industrial Area Classifications of Projects in each Region

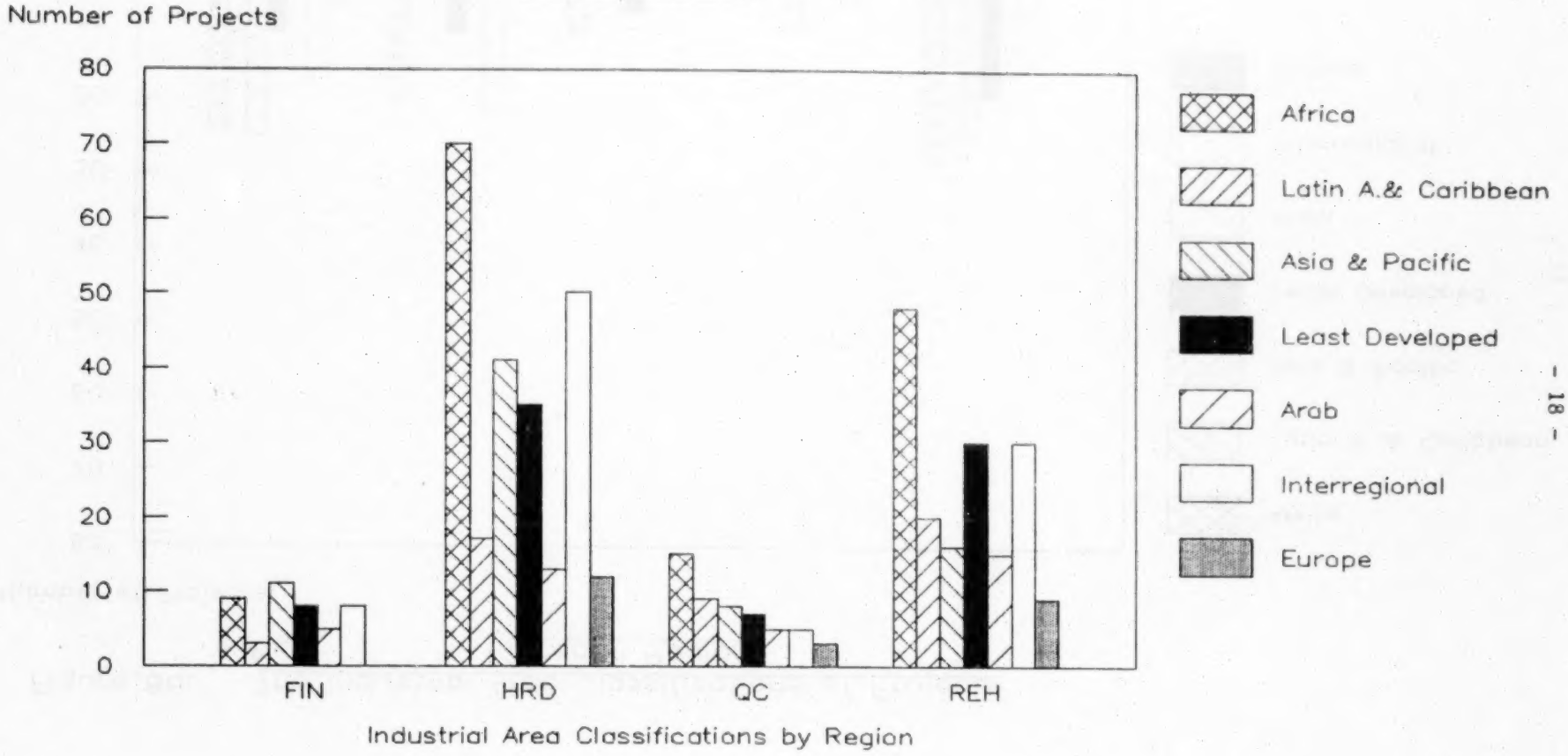


Figure 8c. The Industrial Area Classifications of Projects in each Region

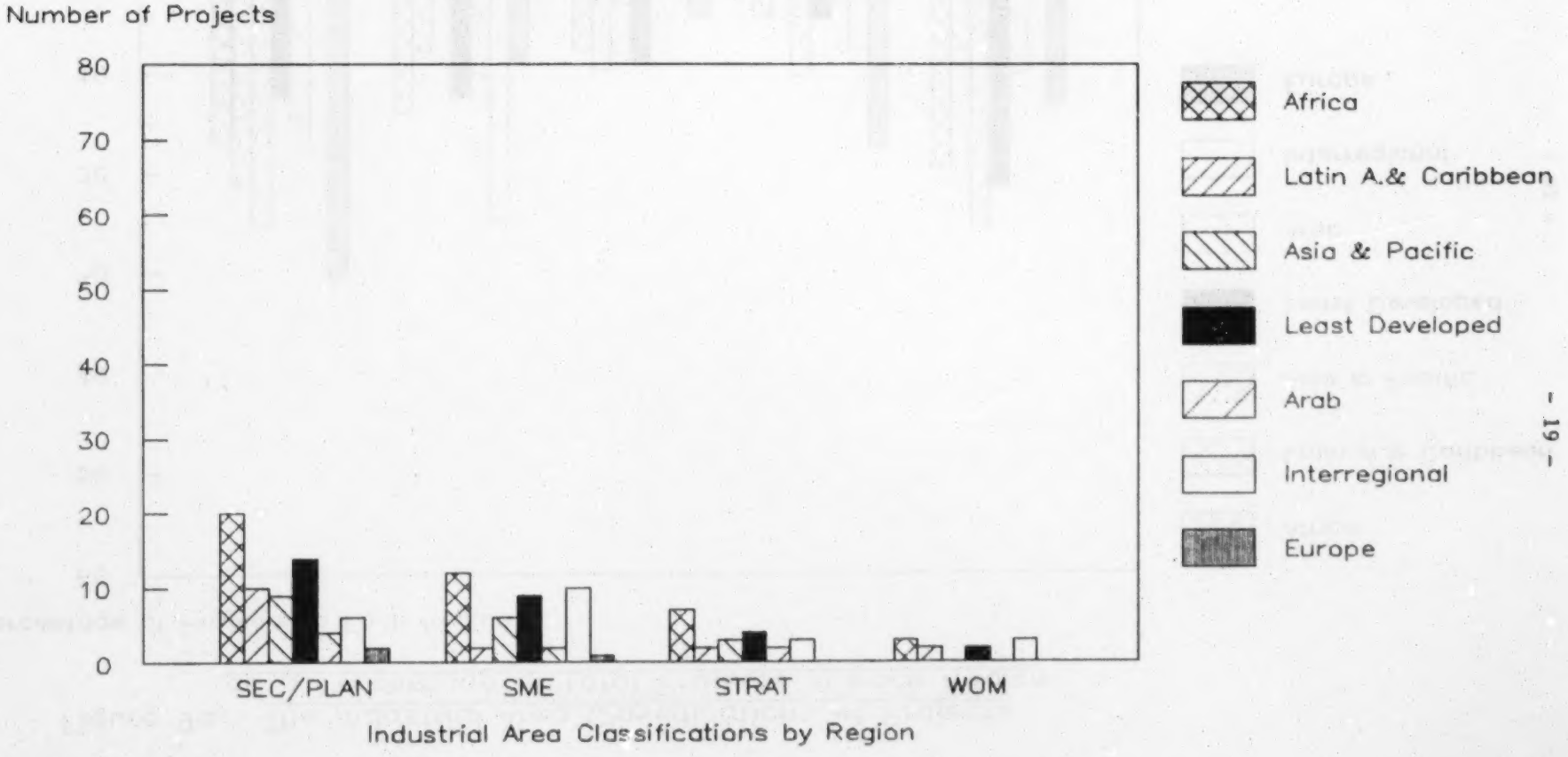


Figure 9a. The Industrial Area Classifications of Projects as a Percentage of Total Projects in each Region

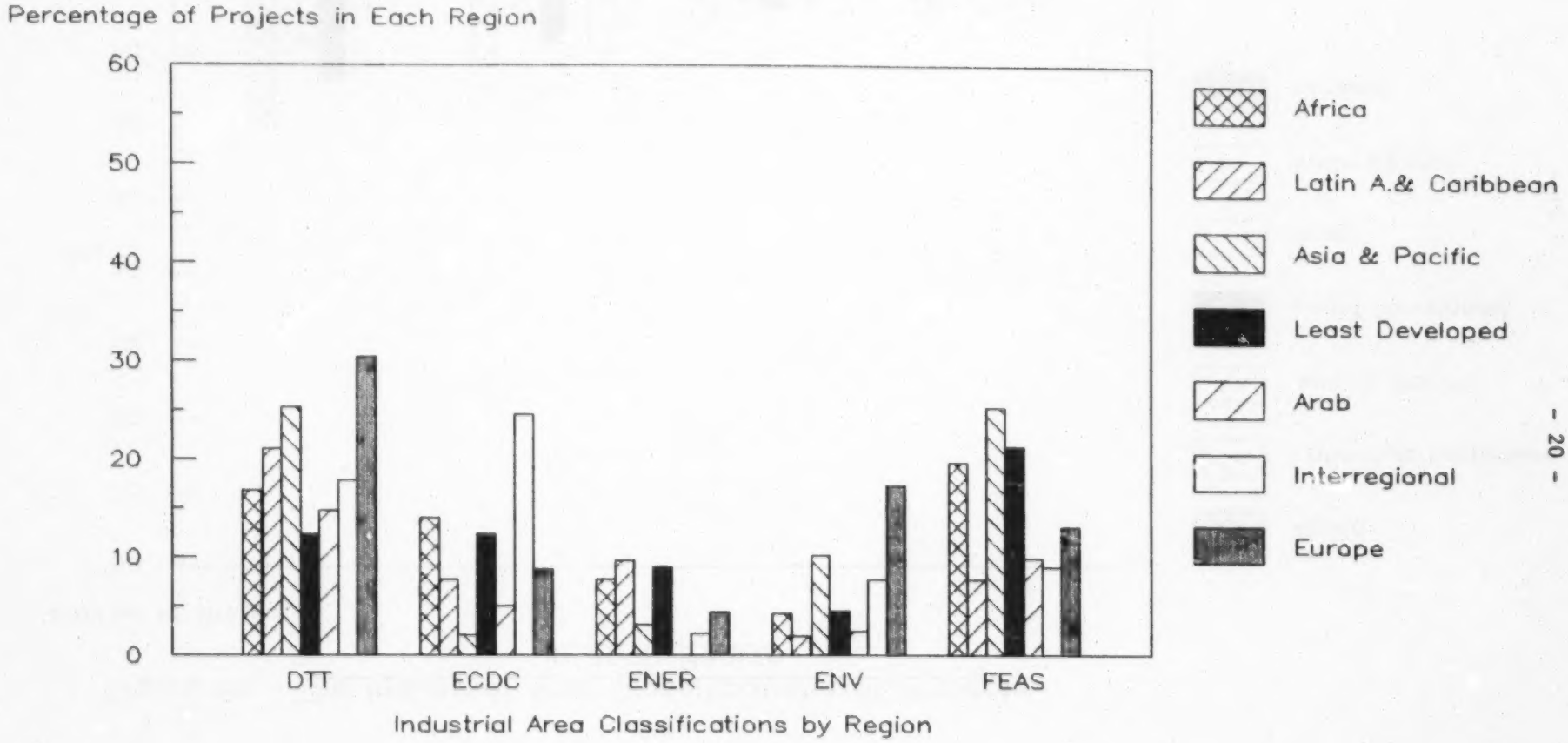


Figure 9b. The Industrial Area Classifications of Projects as a Percentage of Total Projects in each Region

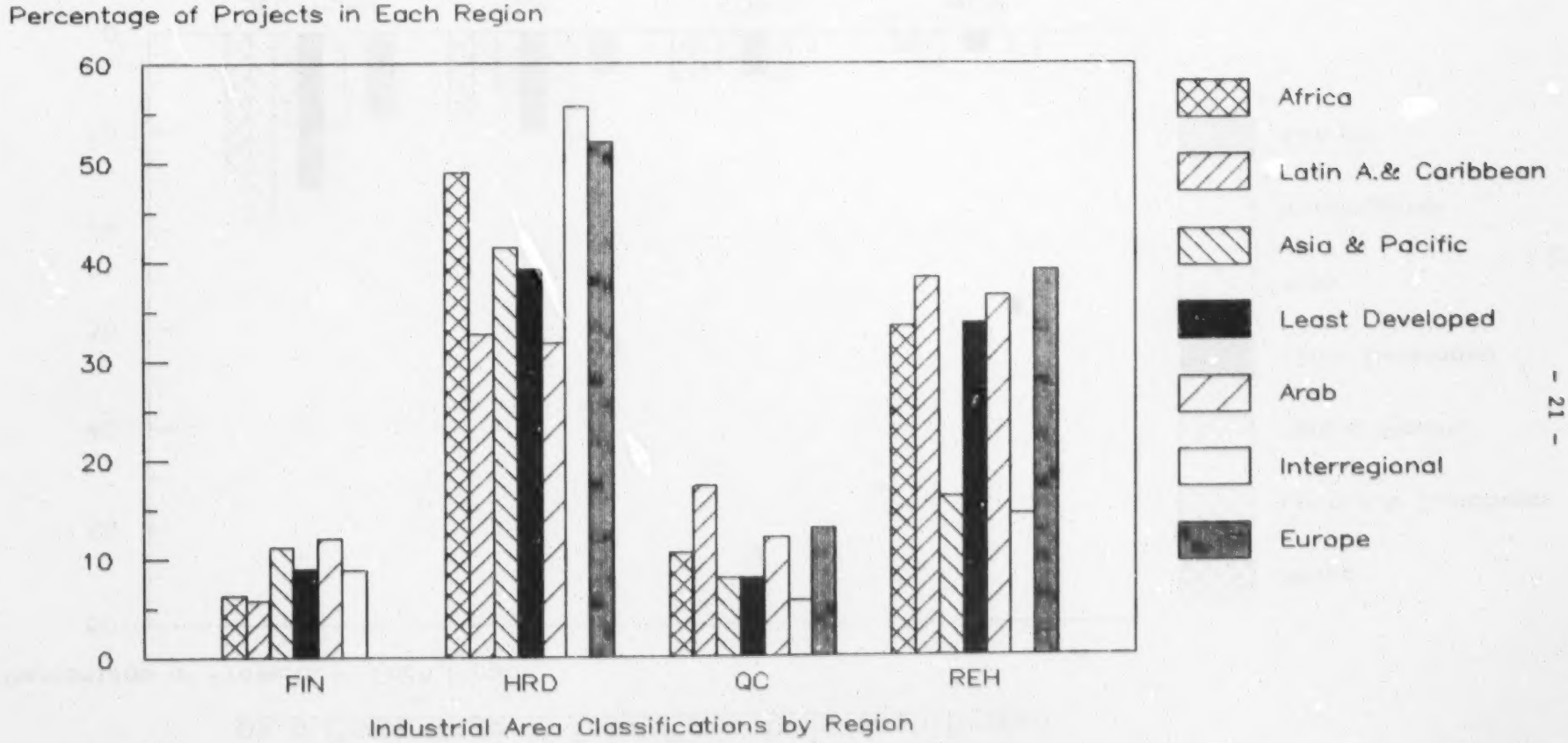


Figure 9c. The Industrial Area Classifications of Projects as a Percentage of Total Projects in each Region

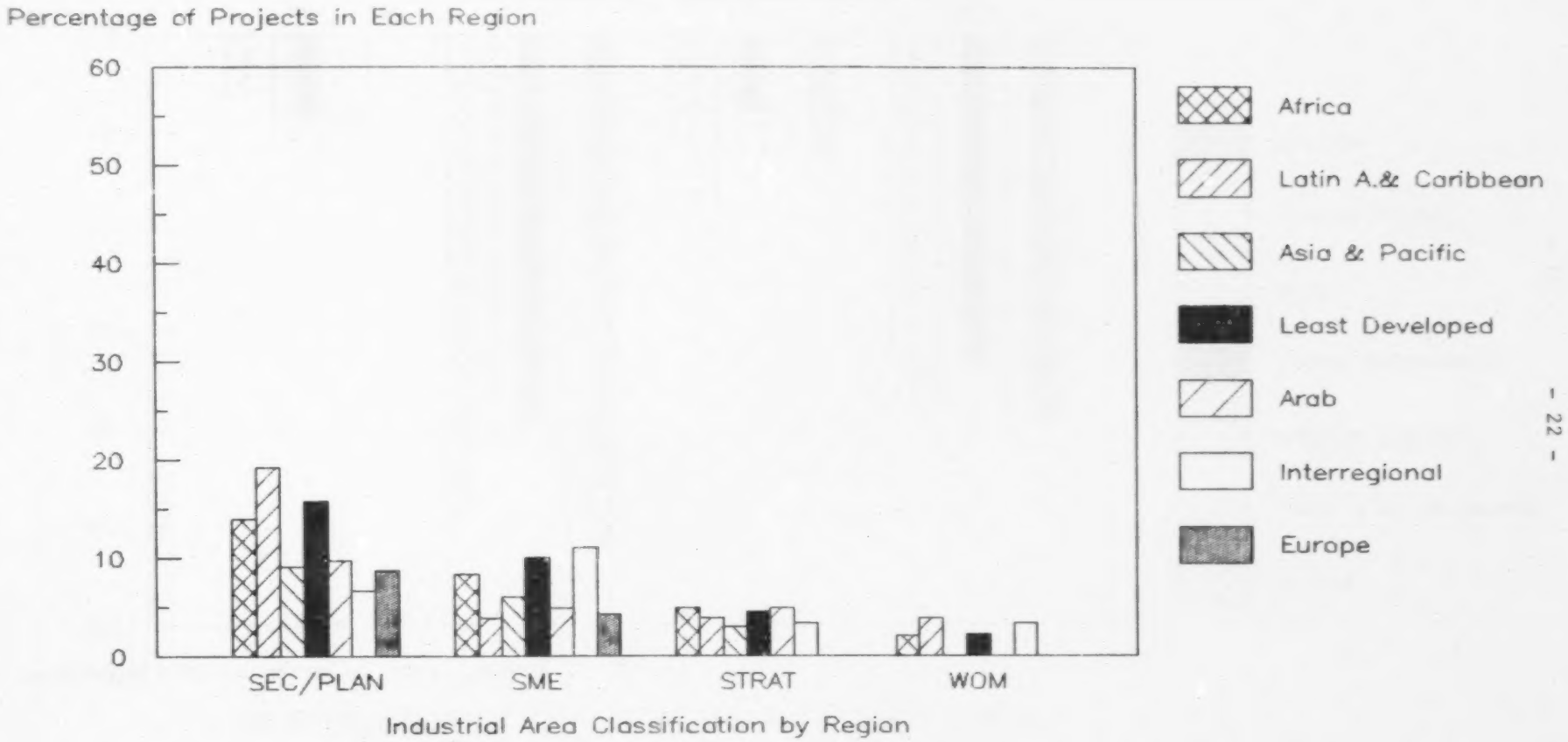


Figure 10a. The Primary Function Classifications of Projects in each Region

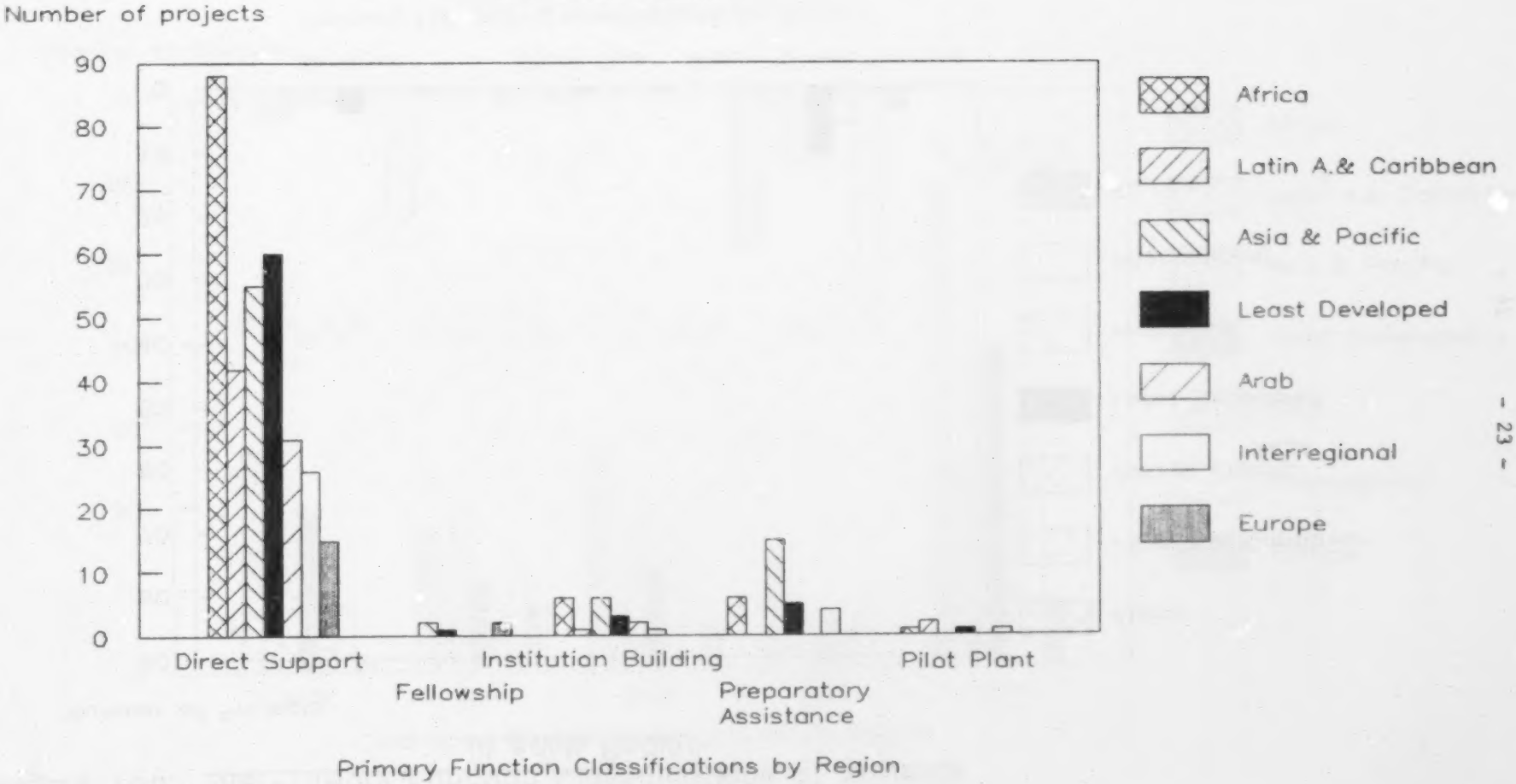


Figure 10b. The Primary Function Classifications of Projects in each Region

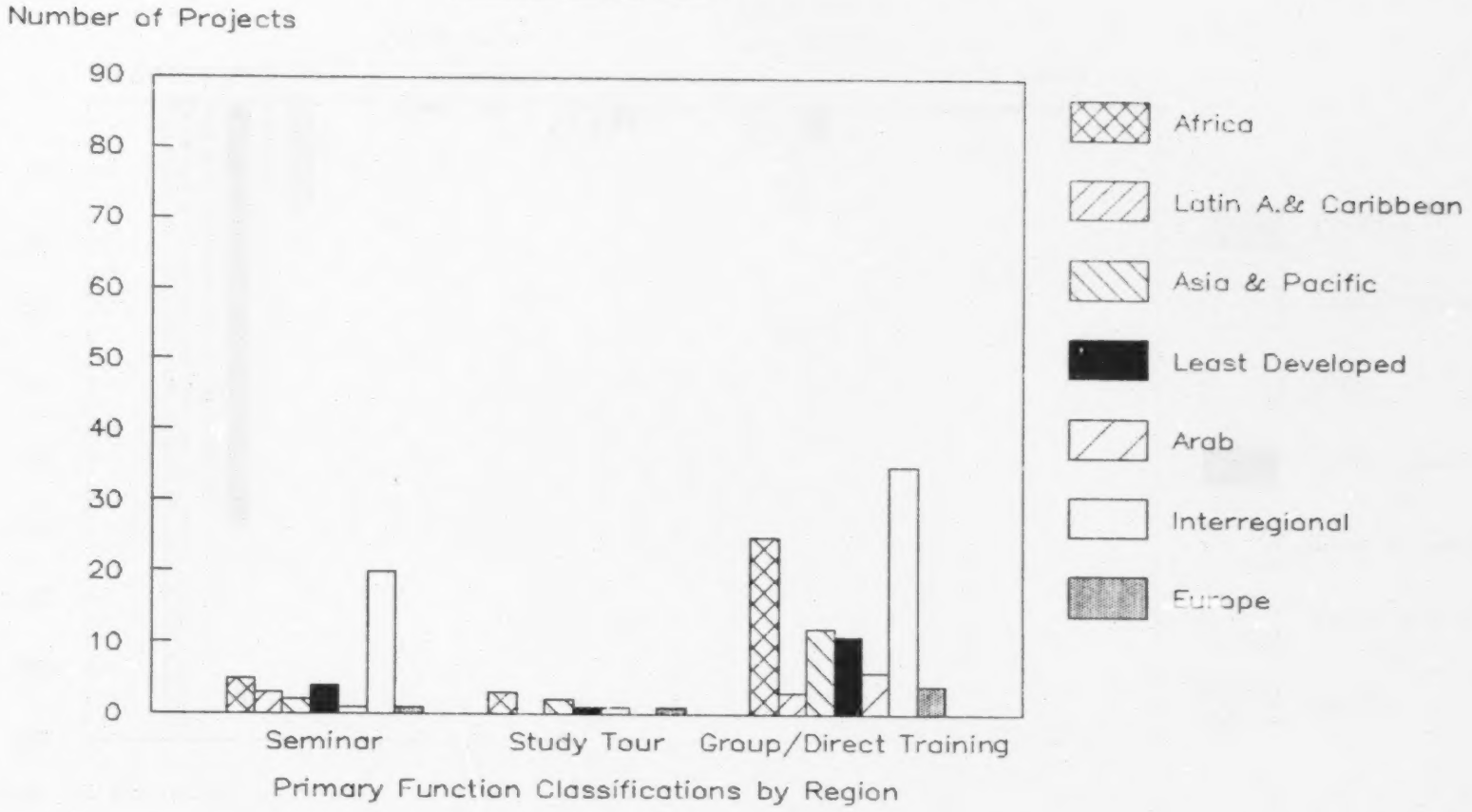
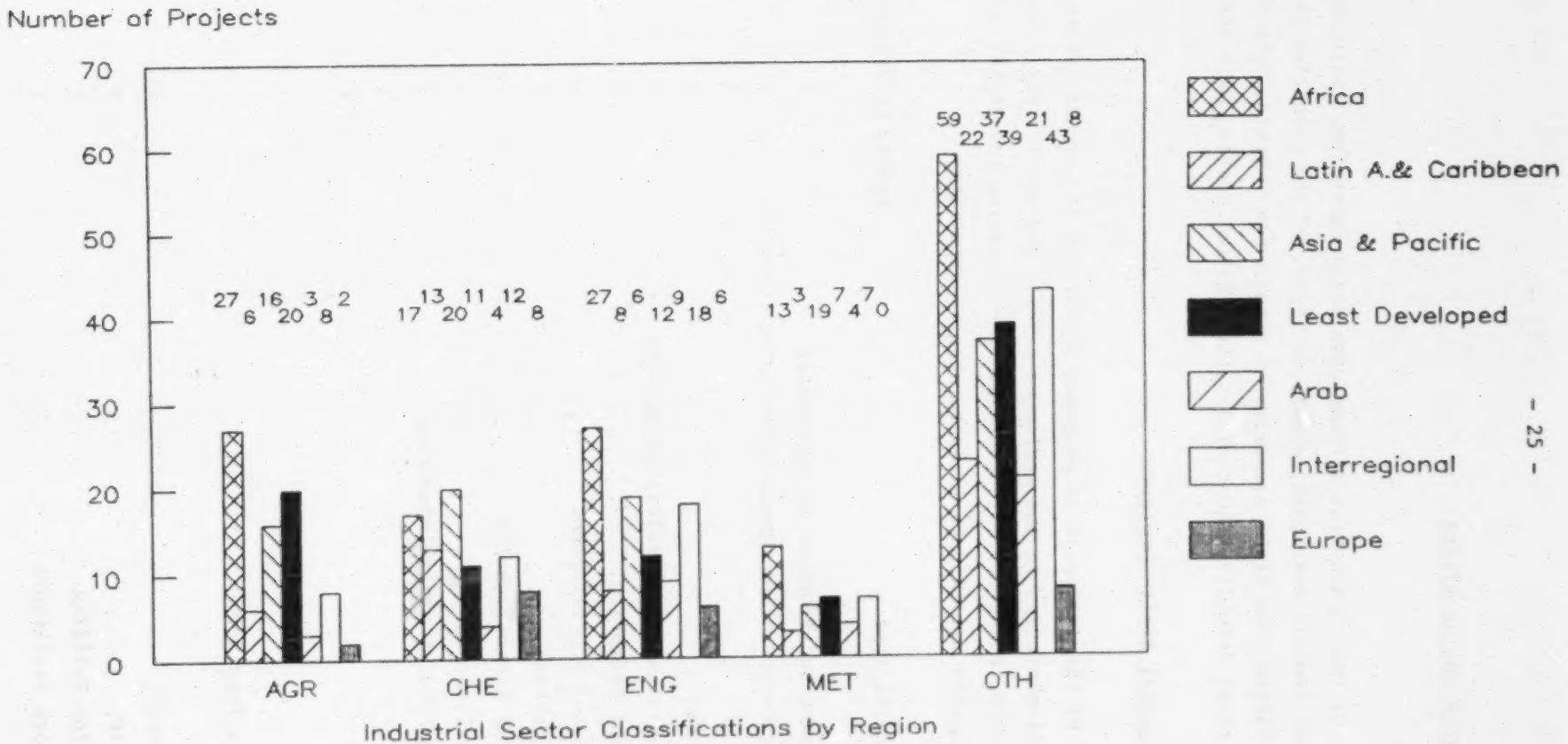


Figure 11. The Industrial Sector Classifications of Projects in each Region



The Focus on Africa

Of the 43 non-Arab African developing countries, including in this case Somalia and Sudan, eight, or 18.6%, of the countries received no projects. The eight countries in question were Benin, Botswana, Central African Republic, Equatorial Guinea, Gabon, Gambia, Mali and Zaïre.

Regional Africa Projects

Of the 143 projects proposed for Africa 46, or 32%, where for implementation in the region as a whole and not for any individual nation. These projects possessed the following Industrial Area, Primary Function and Industrial Sector characteristics:

Industrial Area	Number of Projects
Development and Transfer of Technology	9
Economic Co-operation amongst Developing Countries	12
Energy	2
Environment	5
Feasibility and Pre-feasibility Studies	4
Investment Promotion	2
Human Resource Development	36
Quality Control	5
Industrial Rehabilitation	14
Sectoral/Planning	6
Small and Medium Scale Industries	5
Strategies	1
Women	2

Primary Function	
Direct Support	21
Fellowship	0
Institution Building	2
Preparatory Assistance	1

Project Formulation	1
Pilot Plant	3
Seminar	5
Study Tour	1
Group/Direct Training	13

Industrial Sector

Agriculture	8
Chemical	4
Engineering	9
Metallurgical	7
Other	19

Of note in the Industrial Area classifications is the importance, by comparison with the total of projects for Africa, of projects promoting economic co-operation amongst developing countries. 60% of projects promoting economic co-operation in Africa are found amongst these 46 projects. The numerical importance of projects fostering economic co-operation might be expected amongst region-wide projects. It is also seen that over half of all Africa's Human Resource Development projects are found amongst the 46 regional African projects. Relatedly, the Primary Function classifications show that more than half the total of African projects with a Group/Direct Training primary function are found amongst these region-wide projects. This indicates that training in Africa tends to be formulated on a region specifc rather than a country specific basis. All but one of Africa's environmentally related projects are formulated for the region and not for a specific country.The Industrial Sector proportions of projects in this regional category closely approximate the distribution for Africa as a whole.

Regional and National African Projects

A number of figures were calculated relating to specific development objectives expressed in the "United Nations Programme of Action for African Economic Recovery and Development 1986-1990". This programme stipulates a range of economic and social priorities at national, subregional and regional levels. Where these priorities clearly concern UNIDO a summary analysis of the related projects was made.

The development of agriculture and agriculture related industries is the cornerstone of the Programme's goals. Only 19% of Africa projects however had an agro-industries sectoral classification. The development of transport and communications in support of agriculture is listed as one priority within the Programme. All related subsectoral codes were tested against the African projects, 9 of which were found to be engaged in the development of and/or the amelioration of problems in the transport and communications subsectors. These projects had the following ISIC codes:

Code	No. of Projects	Subsector
7200	1	Communication
3842	1	Manufacture of Railroad Equipment
3849	2	Manufacture of Transport Equipment N.E.C.
7111	1	Railway Transport
3841	4	Shipbuilding and Repairing

If we exclude shipbuilding and repairing as being not directly supportive of agriculture (although of possible importance in intra and inter-regional trade) then 5 projects remain. This figure represents 3% of all African projects.

A further agriculture-related priority is the " Development of mechanization and the use of modern farm and processing machinery, increased use of fertilizers and pesticides". On testing the African projects 17 related to these objectives. These projects had the following ISIC codes:

Code	No. of Projects	Subsector
3822	12	Manufacture of Agricultural Machinery and Equipment
3515	2	Manufacture of Fertilizers and Pesticides
3118	3	Sugar Factories and Refineries

Two projects addressed the priority of improving storage capacity for agricultural produce.

Priority is also accorded to the rehabilitation and development of agro-related industries. A quarter of African rehabilitation projects are found in the agricultural sector. This figure is significantly above the share of rehabilitation projects in agro-related industries amongst the 448 projects as a whole. 17 projects possessed the following ISIC codes relating to this priority:

3113	3	Canning and Preserving of Fruits and Vegetables
3114	2	Canning, Preserving and Processing of Fish and Similar Foods
3121	12	Manufacture of Foods Products Not Elsewhere Classified

Five projects were found under the generic ISIC code 1120 (Agricultural Services).

One further project had the ISIC code 1110 (Agricultural and Livestock Production).

The Programme also underlines the importance of developing qualified manpower in Africa. From the 25 African Group/Direct training projects two trends emerged. The first was the importance of training in the preparation of feasibility studies and the use of the computerized model for feasibility analysis and reporting (COMFAR). 4 of the 25 projects had this combined objective. The second feature of the 25 Group/Direct training projects was the presence of 9 projects relating to the development of industrial and/or project management skills. Both of these trends reflect goals of the Recovery Programme. One project was primarily

concerned with the training of African educational staff able to impart industrial skills to others. No clear focus is evident in the subsectoral location of these training projects however. Only one ISIC code is repeated (5000-Construction),once, amongst the 25 projects.

From an estimation of the numbers of counterparts trained it was seen that 21% received instruction in engineering and technical related disciplines, 33% were instructed in the areas of economics and financial analysis and 46% were trained in management related skills.

An important subregional priority involves the development of energy sources alternative to charcoal and wood with a view to protecting the ecology from the consequences of rapid deforestation. Approximately 8% of Africa projects are related to either the development of new energy sources or the more efficient use of present sources.

The role of women in African development, particularly in the area of food production, is recognized in the Programme. Africa contributes three projects involving the integration of women in industrial development.

While many projects address priority concerns, disaggregation of the African projects suggests the lack of a unifying pattern. Regarding the goals of the U.N Economic Recovery Programme for Africa projects are few in number amongst some of the major objectives. It appears that the Group/direct training projects do not reinforce the other African projects. Were there a complementary relationship between the training and other projects a parallel would have been seen in the subsectoral distributions of the two types of project. Similarly, from figures 9a,9b and 9c it appears that no single African industrial area classification accounts for a proportional share of projects markedly distinct from the shares exhibited by other regions.

Further Consideration

The disaggregations of project data presented above are not exhaustive and have been compiled under a time constraint. Numerous further combinations of queries on project characteristics can be answered by the project monitoring system. Of value may be the investigation of the nature of Interregional projects as well as the study of industrial sector projects with an "OTH" classification. Inter-country illustrations of the characteristics of recipient states (as with ogive curve 4 above), across a range of social and economic indicators, may provide indications as to wether projects are, on aggregate, targeted in priority areas. The data could also contribute to an assessment of the degree to which projects support each other in promoting the integrated development of any given productive system.

Conclusions

From the general analysis of all the project proposals received by APP in 1988 a number of facts were outstanding.

- Technical assistance resources are disbursed through small sized projects.
- Africa was seen to receive the largest regional share of project numbers and resources. Relatively small numbers of projects were received by Latin American and Arab nations, particularly by comparison with Europe.
- Africa projects correspond to some extent with the objectives enunciated in the United Nations Programme of Action for African Economic Recovery and Development 1986-90, although project numbers amongst some major objectives are few. A coordinated pattern to Africa projects, reflecting specific problems of the region, is not evident.
- By far far the most important primary function of projects is Direct Support, followed by Group/Direct Training.

- Human Resource Development and Industrial Rehabilitation are the most numerous entries when classifying projects by Industrial Area.
- Discounting "Other Industries" projects, the largest sectoral project shares belong to the Engineering and Chemical industries.